



Norfolk Partnership Laboratory

Part of the Norse Group

Prepared by:
Norfolk Partnership Laboratory, Norse Eastern Ltd, County Hall,
Martineau Lane, Norwich, Norfolk, NR1 2SG
Telephone (01603) 578389

Desk Study and Risk Assessment Laurel Farm Barn Oulton, Suffolk 104376 June 2023

Client:
KE & R & K Hodgkin
Laurel Farm
Hall Lane
Oulton
Lowestoft
Suffolk
NR32 5DL

i) Contents

1.0	Introduction	5
1.1	GENERAL	5
1.2	REPORT OBJECTIVES	5
1.3	SITE LOCATION	5
1.4	SITE LAYOUT	6
1.5	PLANNING APPLICATION	6
2.0	Desk Study	7
2.1	DESCRIPTION OF SITE AND SURROUNDINGS	7
2.2	DESK STUDY RESEARCH UNDERTAKEN	14
2.3	PAST AND CURRENT ACTIVITIES AT THE SITE	15
2.4	INTENDED FUTURE USE OF THE SITE	20
2.5	PLANNING APPLICATIONS OR PERMISSIONS AT THE SITE	20
2.6	GEOLOGY	21
2.7	HYDROGEOLOGY AND HYDROLOGY	22
3.0	Identification of potential contaminants of concern and source areas	23
4.0	Risk Assessment	24
4.1	CONCEPTUAL MODEL	24
4.2	SOURCES OF CONTAMINATION	24
4.3	POLLUTION LINKAGES	25
4.4	RECEPTORS	26
4.6	DISCUSSION OF UNCERTAINTIES AND GAPS IN INFORMATION	30
4.7	DISCUSSION OF UNCERTAINTIES AND GAPS IN INFORMATION	30
5.0	Discussion of risks posed by the site	31
5.1	POTENTIAL ON SITE MADE GROUND DEPOSITS	31
5.2	POTENTIAL GAS MIGRATION FROM OFF SITE FILLED POND TO THE SOUTH.	31
5.3	POTENTIAL GAS MIGRATION FROM FILLED PIT 120 METRES TO THE SOUTH	31
6.0	Recommendations	32

Appendices

Appendix A Site location plan

Appendix B Geology report

Appendix C Historical land use and historical maps

Appendix D Full Envirocheck Report

Appendix E Potential contaminative sources plan

Appendix F Conceptual site model

Appendix G Proposed plans

ii) Distribution

KE & R & K Hodgkin	1 copy
Norfolk Partnership Laboratory	1 copy

1.0 Introduction

1.1 General

This desk study was carried out on land to the south of Hall Lane, Oulton, Suffolk (OSGR 651881/294843). The area under consideration is a dilapidated barn and outbuilding. This report by Norfolk Partnership Laboratory (NPL) was instigated at the request of Mr K Hodgkin of KR & R & K Hodgkin, on an email dated 9 May 2023, after acceptance of NPL's quotation. NPL provides a service within Norse Eastern Ltd.

This investigation fulfils the requirements for a desk study and walkover survey as specified in NHBC Standards, Chapter 4.1 Land Quality - managing ground conditions, January 2016. In addition, a risk assessment has been carried out to the requirements of The Environmental Protection Act Part IIA.

This report is inclusive of a full Envirocheck report, Envirocheck historical maps, historical land use and a geological report. In addition, consideration is given to the health and safety of construction workers and subsequent residents that may be affected due to any soil contamination.

It is proposed to redevelop the barn and outbuilding to a holiday let.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Although every effort has been made to give a true assessment of the condition of the site within the constraints of the desk study, it is possible that different ground conditions or contamination may exist in parts of the site that is neither recorded nor visible. The risk of such occurrences should be further reduced by the main investigation if required.

1.2 Report objectives

The objectives of these works are to assess contamination sources, pathways, and receptors, and to determine whether any contamination may be present either within the site boundaries or just outside the site. The report also assesses the extent to which human health, buildings and services and controlled waters may be affected. If contamination is thought likely to be present, recommendations will be made to ascertain the level of contamination and if these levels are within allowable limits.

1.3 Site location

The site is located to the south of Hall Lane in Oulton, Suffolk (OSGR 651881/294843). Oulton is approximately 3.50 kilometres to the north west of Lowestoft.

A site location plan is in Appendix A.

1.4 Site layout

The study area is rectangular in shape, approximately 0.01 hectares in area and is approximately 20 metres above Ordnance Survey Datum.

1.5 Planning application

The site is subject to the planning conditions of East Suffolk Council ref : DC/21/4436/FUL.

2.0 Desk Study

2.1 Description of site and surroundings

A walkover survey was undertaken by Mr S Berwick of NPL on 23/05/2023.

The development area comprises a derelict barn located centrally in a courtyard surrounded by intact concrete and a smaller building adjacent to the southern side of Hall Lane also in a semi derelict state.

The main barn was constructed in 1803 and is brick with former pantile roof which failed and was removed approximately twenty years ago. The remaining structure is weather damaged and in a poor state of repair with the western wall propped with timber supports. Inside the structure are cement blocks, timber, barbed wire, roof tiles and general debris with weeds and vegetation also noted. There is evidence the barn was once used for livestock and latterly storage of grain although the building has not been used since the roof was removed.

A smaller brick and pantiled agricultural building is to the north also in a poor state of repair with vegetation growing through a partially collapsed roof . There are troughs inside the building suggesting previous use was for livestock. Presently the building is used for storage. The proposal is to demolish the western end and reconstruct the building.

To the east of the barns are existing brick and tiled holiday let conversions with Laurel Farmhouse beyond. To the south the concrete courtyard extends a further 15 metres to a lawned area. A bunded heating oil tank is located close to the garden boundary wall of the Farmhouse. On the western side is a blockwork and cement board clad agricultural building with a timber stable block to the south.

A site plan is included in Appendix A



Photograph 1: Southern elevation of main barn.



Photograph 2 : Eastern side of barn. Existing holiday lets to the east.



Photograph 3 : View internally on the eastern side.



Photograph 4 : View of the south-western propped external wall.



Photograph 5: Building materials and debris internally



Photograph 6: Land to the north of the main barn.



Photograph 7 : Dilapidated barn to the north adjacent to Hall Lane.



Photograph 8 : Usable area for general storage.



Photograph 9: External northern elevation adjacent to Hall Lane.



Photograph 10: External western elevation.



Photograph 11: Agricultural building to the west of the development area.



Photograph 12: land to the south with heating oil tank close to farmhouse boundary wall.

2.2 Desk study research undertaken

An examination was made of local historical information held by Suffolk County Council in addition to information obtained from the Envirocheck reports and walkover survey.

Information has also been gathered from numerous sources. These are summarised below:

- Institute of Geological Sciences, Hydrogeological Map of Northern East Anglia, Sheet 1 Regional Hydrological Characteristics and Explanatory Notes.
- Institute of Geological Sciences, Hydrogeological Map of Northern East Anglia, Sheet 2 Chalk, Crag, and Lower Cretaceous Sands: Geological Structure.
- Institute of Geological Sciences - British Regional Geology East Anglia and Adjoining Areas (Fourth Edition) 1961.
- British Geological Survey, East Anglia Sheet 52N00, Solid Geology; Scale 1:250,000.
- British Geological Survey, East Anglia Sheet 52N00, Quaternary; Scale 1:250,000.
- Ordnance Survey Digital Map 2014.
- British Geological Survey 1:50000 series Sheets 162 and 176.
- Ordnance Survey Maps 1884/5, 1905, 1906, 1927, 1928/9, 1938, 1951, 1958, 1966 – 1968, 1966 – 1979, 1971 – 1976, 1972, 1977, 1981 – 1984, 1987, 1989, 1990, 1992, 1993, 1995 and 1996.
- BRE BR211 Radon: Guidance on protective measures for new dwellings.
- BRE SD1 Concrete in aggressive ground.
- BS 10175:2011 – Investigation of potentially contaminated sites.
- Department of the Environment Industry Profiles.
- CIRIA C665 Assessing risks posed by hazardous ground gases to buildings, 2007.
- BS 8485:2015 - Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings.

2.3 Past and current activities at the site

On the 1885 OS Map the barn and outbuilding are present on the site. The barns (which have been converted to holiday lets) are present to the east with Laurel Farmhouse further east. Three ponds are in the vicinity of the site approximately 20 metres south, 26 metres to northeast and 75 metres to the northwest. A gravel pit is annotated approximately 225 metres to the southwest. The surrounding land is all agricultural.

On the 1905 OS Map a cluster of farm buildings are shown to the west of the main barn. The gravel pit approximately 225 metres to the southwest has increased in size. A sand and gravel pit an Isolation Hospital and a Wind Pump are annotated approximately 700 metres to the southeast.

The 1927 OS Map shows no changes to the site. An additional pond is present approximately 40 metres to the west on the southern side of Hall Lane.

The 1928 - 1938 OS Map shows no changes to the site or surrounding area.

The 1951 - 1958 OS Maps shows no significant changes to the site. The Gravel Pit to the southwest has been further extended.

The 1966 OS Map shows no change to the development area. The pond off site to the south is no longer shown. Hall Lane is numbered B1074. The lane to the east of the site is named Long Fields Path. The sand and gravel pit to the south has increased in size. The former Isolation Hospital to the southeast is annotated 'Civil Defence Technical Training Centre'.

The 1976 1: 10000 OS Maps shows no significant changes to the site. The sand gravel pit to the south west is annotated 'disused'. An industrial area has been developed off-site to the southeast.'. Parkhill Caravan Park has been annotated approximately 590 metres to the northeast.

The 1984 OS Map shows no significant changes to the site or surrounding area. The former sand and gravel pit is annotated disused workings.

The 1990 OS Map shows no significant changes to the development area. The buildings to the west are as they appear presently with the cement board clad agricultural building and stable block now shown. The disused pit is approximately 120 metres to the south.

The 1992 OS Map shows no significant changes to the site. A housing estate including Dunston Drive and Hobart Way is now in the process of development approximately 375 metres to the southeast.

The remainder of the OS maps show no significant changes to the study area or surroundings.

The buildings have clearly been part of Laurel farm with evidence of the rearing of livestock and anecdotal evidence for the storage of grain. The barn was built in 1803.

Images prior to the removal of the roof.





1999 aerial image with the roof appearing in a sound condition.



2006 aerial image shows the deterioration to the structure.



2006 aerial image with the roof removed.



2016 aerial image



2017 aerial image



2021 aerial image

2.4 Intended future use of the site

The proposed development of the site will be for a holiday let.

2.5 Planning applications or permissions at the site

The site is subject to the planning conditions of East Suffolk Council ref : DC/21/4436/FUL.

2.6 Geology

The geology of the region may be summarised as follows:

Pleistocene : Corton Woods Sands and Gravels
: Lowestoft Formation: Sand and Gravel & Diamicton
: Crag

The **Crag** was formed when, after a long period of standing above sea level, the area was submerged by a marine transgression caused by movements of the sea floor during a period of coastal instability in the region. The deposits are a variable series of yellowish- or reddish-brown sands, laminated clays and pebbly gravels. In places they are highly fossiliferous, shell fragments being especially prolific. The thickness of these deposits is variable between 5 and 60 metres.

Lowestoft Formation is a heterogeneous mass of rock fragments, mainly chalk and flint, but with some material from further afield, suspended in a groundmass of grey sand, silt and clay which is usually derived from local sources. The glaciers which formed this material advanced from the west or north-west.

The **Corton Woods Sands and Gravels** are a sequence of orangey brown fine and medium sands and medium gravels. They are generally found capping Lowestoft Till plateau's. Although there is some debate as to the origin of these deposits it seems likely that they are glacial outwash deposits.

A geological report can be found in Appendix B.

2.7 Hydrogeology and Hydrology

According to the Regional Hydrogeology Map of Northern East Anglia, the Crag is the principal aquifer for the area. The estimated minimum hydrostatic level of the Crag water table in the vicinity of the site is approximately at Ordnance Survey Datum.

The site is approximately 20 metres above datum therefore the groundwater is approximately 20 metres below existing ground level.

The site is located within an Environment Agency Total Catchment (Zone 3) for groundwater source protection. An Outer Zone 2 is located approximately 500 metres to the south east with an Inner Zone 1 approximately 700 metres to the south east.

The BGS flood map indicates that there is limited potential for groundwater flooding to occur.

The aquifer designations are Principal for the bedrock Crag and Secondary Undifferentiated for the Lowestoft Formation.

Based upon information supplied by the Environment Agency website, the site is not at risk of flooding from rivers or sea.

Three ponds are present offsite approximately 50 metres to the west, 50 metres to the north east and 87 metres to the northwest.

3.0 Identification of potential contaminants of concern and source areas

Historical mapping indicates that there has been no potentially contaminative past industrial land use within the site. The barn was constructed in 1803 and has been associated with Laurel Farm. Both buildings have been used for livestock and grain storage. The roof structure was removed on the main barn approximately 20 years ago and the building not used. The smaller barn to the north has been used for storage. A number of potential pollutants are identified in the Department of the Environment Industry profiles. No profile was considered to be applicable to this site. After visual examination of the site and information from the desk study the following have been identified as potential pollution sources.

- Potential on site Made Ground deposits .
- Potential gas migration from offsite filled pond to the south
- Potential gas migration from filled pit 120 metres to the south

These have a variety of potential pollution linkages.

3.1 Consultations with the local authority

No consultation has taken place between Norfolk Partnership Laboratory and the local authority. The site is subject to the planning conditions of East Suffolk Council.

3.2 Consultations with the Environment Agency

No consultation has taken place with the Environment Agency.

3.3 Consultations with other appropriate bodies

No other bodies have been consulted during the compilation of this report.

3.4 Review and summary of previous reports

Visual Structural Inspection Report, Laurel Farm Barn, Oulton, Suffolk, report reference 22-024R_001, dated March 2022 was referred to during the compilation of this report.

Extensive remedial works are proposed particularly to weather damaged high level brickwork and mortar with repairs to brickwork around existing openings also required.

4.0 Risk Assessment

4.1 Conceptual model

The known or perceived sources of contamination and pollution linkages are assessed in this section. The conceptual model is realised here in tabulated form.

4.2 Sources of contamination

Historical mapping indicates that there has been no potentially contaminative past industrial land use within the site. The barn was constructed in 1803 and has been associated with Laurel Farm. Both buildings have been used for livestock and grain storage. The roof structure was removed on the main barn approximately 20 years ago and the building not used. The smaller barn to the north has been used for storage. A number of potential pollutants are identified in the Department of the Environment Industry profiles. No profile was considered to be applicable to this site. After visual examination of the site and information from the desk study the following have been identified as potential pollution sources.

- Potential on site Made Ground deposits .
- Potential gas migration from offsite filled pond to the south
- Potential gas migration from filled pit 120 metres to the south

These have a variety of potential pollution linkages.

4.3 Pollution Linkages

Each of the potential contaminants may have several pollution linkages. Each of these linkage types has several potential pathways.

Each of the potential contaminants may have a number of pollution linkages. Each of these linkage types has a number of potential pathways.

- i) Surface soil linkages
 - a) Direct contact ingestion or absorption
 - b) Indirect contact ingestion or absorption
 - c) Leaching to groundwater
- ii) Subsurface soil linkages
 - a) Direct contact ingestion or absorption
 - b) Indirect contact ingestion or absorption
 - c) Leaching to groundwater
- iii) Surface water linkages
 - a) Direct contact ingestion or absorption
 - b) Indirect contact ingestion or absorption
 - c) Percolation to groundwater
- iv) Groundwater linkages
 - a) Direct contact ingestion or absorption
 - b) Indirect contact ingestion or absorption
- v) Airborne linkages
 - a) Vapour intrusion into confined / indoor spaces
 - b) Inhalation or absorption of particulates
 - c) Inhalation or absorption of volatile compounds

4.4 Receptors

A number of potential receptors exist. These can be broadly grouped as

- i) Construction Worker
- ii) Future Resident
- iii) Trespasser
- iv) Local population
- v) Flora and fauna
- vi) Buildings
- vii) Surface Water
- viii) Groundwater

For each source, the linkage type, pathway and potential receptors can be identified. A level of risk if no action is taken can then be assigned to each of these linkages. The level of risk has been divided into six categories as follows

Very Low Risk – Considered very unlikely or impossible

Low Risk – Considered conceivable but unlikely

Medium Risk – Considered possible but unusual

High Risk – Considered probable ie about 50% chance

Very High Risk – Considered that it is to be expected to happen

Certainty – Considered that it will happen

Note: These risks are related to the probability of an event happening. They do not relate to the severity of the effects on human health or flora and fauna nor the financial consequences if the event should happen.

4.4.1 Potential on site Made ground Deposits

Linkage type	Pathway	Receptor	Risk	
Surface soil linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
	Direct contact	Surface water	Low	
	Indirect contact ingestion or absorption	Resident	Low	
Subsurface soil linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Resident	Low	
		Flora and fauna	Low	
	Direct contact	Buildings and services	Low	
	Indirect contact ingestion or absorption	Resident	Low	
	Leaching to groundwater	Local population	Low	
		Flora and fauna	Low	
		Construction Worker	Low	
		Groundwater	Low	
	Surface water linkage	Direct contact ingestion or absorption	Construction Worker	Low
Resident			Low	
		Trespasser	Low	
		Flora and fauna	Low	
Direct contact		Buildings and services	Low	
		Surface water	Low	
Percolation to groundwater		Local population	Low	
		Flora and fauna	Low	
		Groundwater	Low	
Groundwater linkage		Direct contact ingestion or absorption	Construction Worker	Low
	Local population		Low	
		Flora and fauna	Low	
	Direct contact	Buildings and services	Low	
		Groundwater	Low	
	Indirect contact ingestion or absorption	Local population	Low	
		Flora and fauna	Low	
	Airborne linkage	Inhalation of particulates	Construction Worker	Low
			Resident	Low
			Trespasser	Low
Flora and fauna			Low	
Local population			Low	
Inhalation of volatile compounds		Construction Worker	Low	
		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
		Local population	Low	

4.4.3 Potential gas migration from off site infilled pond to the south

Linkage type	Pathway	Receptor	Risk	
Surface soil linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
		Surface water	Low	
Subsurface soil linkage	Direct contact	Resident	Low	
		Surface water	Low	
	Indirect contact ingestion or absorption	Resident	Low	
		Construction Worker	Low	
	Direct contact ingestion or absorption	Resident	Low	
		Flora and fauna	Low	
	Direct contact	Buildings and services	Low	
		Resident	Low	
	Indirect contact ingestion or absorption	Resident	Low	
		Leaching to groundwater	Local population	Low
Surface water linkage	Direct contact ingestion or absorption	Flora and fauna	Low	
		Construction Worker	Low	
	Direct contact	Resident	Low	
		Trespasser	Low	
	Direct contact	Flora and fauna	Low	
		Buildings and services	Low	
	Percolation to groundwater	Surface water	Low	
		Local population	Low	
	Percolation to groundwater	Flora and fauna	Low	
		Groundwater	Low	
Groundwater linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Local population	Low	
	Direct contact	Flora and fauna	Low	
		Buildings and services	Low	
	Direct contact	Groundwater	Low	
		Local population	Low	
	Indirect contact ingestion or absorption	Flora and fauna	Low	
		Construction Worker	Low	
	Airborne linkage	Inhalation of particulates	Resident	Low
			Trespasser	Low
Flora and fauna			Low	
Local population			Low	
Construction Worker			Low	
Inhalation of volatile compounds		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
		Local population	Low	
		Resident	Low	
Vapour intrusion into indoor spaces	Vapour intrusion into indoor spaces	Resident	Low	
		Local population	Low	

4.4.4 Potential gas migration from filled pit 120 metres to the south.

Linkage type	Pathway	Receptor	Risk	
Surface soil linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
	Direct contact	Surface water	Low	
	Indirect contact ingestion or absorption	Resident	Low	
Subsurface soil linkage	Direct contact ingestion or absorption	Construction Worker	Low	
		Resident	Low	
		Flora and fauna	Low	
	Direct contact	Buildings and services	Low	
	Indirect contact ingestion or absorption	Resident	Low	
	Leaching to groundwater	Local population	Low	
		Flora and fauna	Low	
		Construction Worker	Low	
		Groundwater	Low	
	Surface water linkage	Direct contact ingestion or absorption	Construction Worker	Low
Resident			Low	
		Trespasser	Low	
		Flora and fauna	Low	
Direct contact		Buildings and services	Low	
		Surface water	Low	
Percolation to groundwater		Local population	Low	
		Flora and fauna	Low	
		Groundwater	Low	
Groundwater linkage		Direct contact ingestion or absorption	Construction Worker	Low
	Local population		Low	
		Flora and fauna	Low	
	Direct contact	Buildings and services	Low	
		Groundwater	Low	
	Indirect contact ingestion or absorption	Local population	Low	
		Flora and fauna	Low	
	Airborne linkage	Inhalation of particulates	Construction Worker	Low
			Resident	Low
			Trespasser	Low
Flora and fauna			Low	
Local population			Low	
Inhalation of volatile compounds		Construction Worker	Low	
		Resident	Low	
		Trespasser	Low	
		Flora and fauna	Low	
		Local population	Low	

4.5 Description of possible pollutant linkages for controlled waters

According to the Regional Hydrogeology Map of Northern East Anglia, the Crag is the principal aquifer for the area. The estimated minimum hydrostatic level of the Crag water table in the vicinity of the site is approximately at Ordnance Survey Datum.

The site is approximately 20 metres above Ordnance Survey Datum. The groundwater table is therefore approximately 20 metres below the existing ground level.

4.6 Discussion of uncertainties and gaps in information

There is a low risk (considered conceivable but unlikely) that contaminants identified in the risk assessment could migrate to the regional groundwater table.

4.7 Discussion of uncertainties and gaps in information

It may be possible that there are areas of contamination on the site that have not been found during the desk study, the walkover survey or the studying of historical maps.

5.0 Discussion of risks posed by the site

5.1 Potential on site Made Ground deposits

Made Ground may be present on the site below the intact concrete which surrounds the building, likely to be inert aggregate subbase materials. These pose a low risk (considered conceivable but unlikely) to the development.

5.2 Potential gas migration from off site filled pond to the south.

A small pond was noted on the historical mapping approximately 20 metres to the south of the barn. The pond is not annotated on the 1966 OS map and is not shown on subsequent mapping. It is possible ground gas can be generated and migrate from filled land however considering the size of the feature and the time which has elapsed (50+yrs) the risk of gas generation is considered insignificant. Furthermore, the Lowestoft Till underlying the site is also a relatively impermeable deposit.

This risk has been assessed as low (considered conceivable but unlikely)

5.3 Potential gas migration from filled pit 120 metres to the south

The filled pit approximately 120 metres to the south was a former sand and gravel extraction workings and is shown on the Envirocheck report as an historical landfill site. The distance which any migrating ground gas would have to travel to through a relatively impermeable Lowestoft Till clay subsoil and affect the development has been considered negligible therefore the risk has been assessed as low (considered conceivable but unlikely). It is also known significant ground gas investigations have been undertaken for the new development to the east of the former landfill.

6.0 Recommendations

Based upon the information contained herein it is recommended that no intrusive site investigation is required with respect to contamination.

The proposed development shows a small area of enclosed private garden and an area of garden to the west of the building.

It is recommended if any Made Ground deposits are encountered below the concrete these should be removed and suitably disposed of. At this point an inspection of the subsoils should be made by a representative of NPL and if necessary, samples taken and tested to ensure a suitable formation for the garden area is achieved.

A minimum of 300mm of Topsoil should be used to replenish the soft landscaped areas which should be contaminant free and compliant in accordance with C4SL's, Atkins ATRISK and LQM/CIEH S4UL's threshold values for residential with the consumption of home grown produce land use, with 1% soil organic matter. This material should be accompanied by conveyance notes.

The garden areas will be validated on completion of the works. This will be in the form of a series of hand dug trialpits including photographic evidence proving the depth of Topsoil placed. All works will be documented and submitted in a validation report.

It should also be noted the development is for a holiday let so the likelihood of home-grown produce is minimal.

It should also be stressed that if any possibly contaminated material is encountered during the site clearance or construction processes, work shall cease, and East Suffolk Council and Norfolk Partnership Laboratory should be informed immediately.

Norfolk Partnership Laboratory
Site Investigation Section

This report was prepared under the direction of
the Head of Laboratory Services



I D Brown

and under the supervision of the
Geoenviromental Engineer



S P Berwick

Author of report
Geoenvironmental Assistant Engineer



J Price

Date:08/06/2023